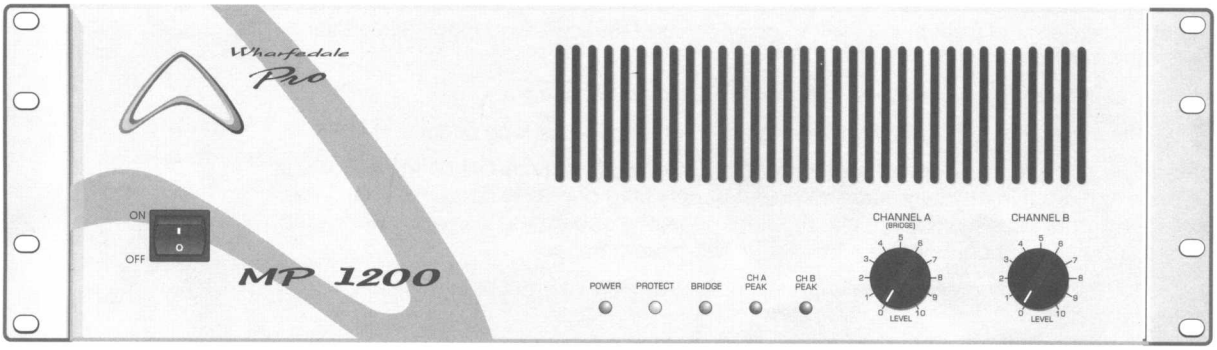
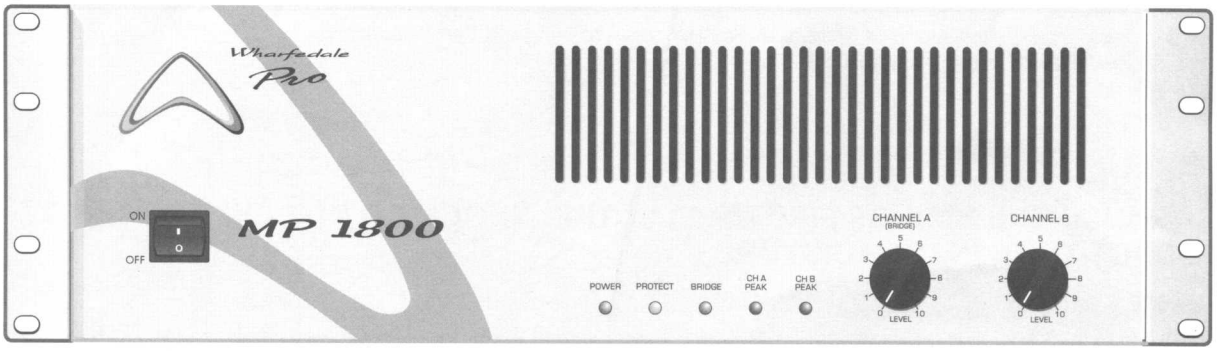
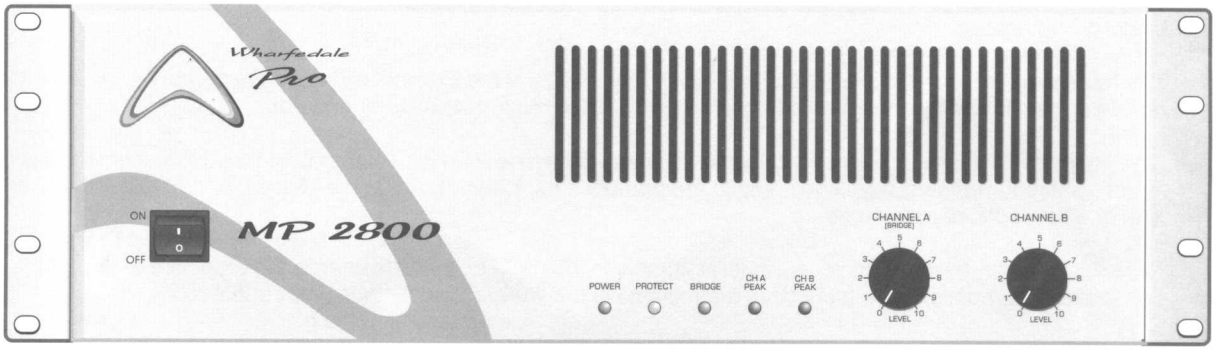
Wharfedale Pro

Power Amplifier

MP 1200 / 1800 / 2800







Operating Manual

IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions - All the safety and operating instruction should be read before the product is operated.
- Keep these instructions - The safety and operating instruction should be retained for future reference.
- Heed all warnings - All warning on the product and in the operating instructions should be adhered to.
- Follow all instructions - All operating and use instructions should be followed.
- Do not use this apparatus near water.
- Mains powered apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- Clean only with dry cloth.
- Do not block any ventilation openings, install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet. (for U.S.A. and Canada)
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments / accessories specified by the manufacturer.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Do not install this equipment on the far position from wall outlet and / or convenience receptacle.
- Do not install this equipment in a confined space such as a box for the conveyance or similar unit.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart / apparatus combination to avoid injury from tip-voer.

1. Outdoor Use and Wet Location Warning.

WARNING:
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

2. Protective Earthing Connection Warning.

WARNING—This apparatus shall be connected to a mains socket outlet with a protective earthing connection.

3. Caution Marking Explanation

The terminals marked with the symbol are hazardous live, and the external wiring connected to these terminals requires installation by an instructed person or the use of ready-made leads or cords.

The lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated " dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to aiert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

4. Disconnection From the Mains Statement

Install this priduct near the wall socket and keep the power plug easily accessible.

5. Caution

These servicing instructions are for use by qualified service personnel only. To reduce the risks of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

Wharfedale Pro

The WHARFEDALE Wireless Works was established in 1932 by Gilbert Briggs who soon established a reputation as one of the most innovative loudspeaker engineers of his generation. His company was at the leading edge of an exciting new technology which was dedicated to bringing the pleasure of music and entertainment into people's homes. As the technology advanced Wharfedale gave many music lovers their first taste of High Fidelity, mounting a series of live sound demonstrations which excited the audio world and heralded the birth of the modern hi-fi loudspeaker.

Today Wharfedale Pro takes the same uncompromising approach to the design and manufacturing of every audio product, using high-quality components and state-of-the-art testing equipment to ensure consistency and high performance. At Wharfedale we design and build all of our products. We control all the variables, so that we don't have to compromise our design goals.

Wharfedale Pro MP Series of Professional Power Amplifiers are high quality amplifiers suitalbe for stage, club and studio use. Using proven circuitry they are straightforward to use, reliable in operation and capable of excellent performance.

Wharfedale Pro MP Series of Professional Power Amplifiers

- Over engineered power supplies with substantial high current transformers.
- Fully Protected Circuitry: Protection for thermal Runaway; output short circuits; DC voltages; switch on/off transients and input overload.
- Cool Running: A combination of a massive extruded aluminium heat sink and variable speed fan ensures effective cooling.
- Over Engineered Design: From the strong steel case through the thick multi layer circuit boards to the array of power transistors, Wharfedale have built in a healthy safety margin.
- Modern manufacturing techniques and value engineered design.

Unpacking

All Wharfedale Pro products are fully checked before leaving the factory. After unpacking please inspect contents for any physical damage.Please retain the shipping carton if Possible and internal packing material in case the unit needs to be returned. Please check as soon as possible the unit is functioning correctly. In the event of any damage please contact your dealer immediately so that a written claim for damages can be made.

Wharfedale Pro Limited Warranty

Wharfedale Pro MP Series Power Amplifiers are warranted to be clear of defects in construction, materials and malfunction under normal operating conditions. Wharfedale will, during the warranty, and its own discretion, undertake to make repairs at no charge if the product has been delivered to Wharfedale Pro by a Wharfedale Dealer. Wharfedale exclude normal exterior wear to finish and cannot be held responsible for any system malfunction due to abuse or using the units beyond the limits and conditions as stated within the specified ratings. Wharfedale shall not be liable for any consequential damages. Any implied warranties expire after the given term.

This warranty is only valid providing:

I) Warranty applies to original purchaser only (warranty not transferable)

II) Warranty card must be filled in fully and returned to Wharfedale Pro within 30 days from date of purchase. Failure to do will not affect your statutory rights.

III) Unit must be returned with original sales receipt or other proof of purchase .

IV) Unit is repaired by Wharfedale or authorised service agent only.

These terms do not infringe your statutory rights.

PLEASE READ IMPORTANT INSTRUCTIONS BEFORE USING THE AMPLIFIERS! SAFETY INSTRUCTIONS

To reduce the risk of electric shock the user should not remove the cover. All operating and safety instructions should be fillowed. The unit should be kept clear of water, fluids and moisture and not be operated in damp conditions. The unit should be operated in a well ventilated environment. The unit should be kept away from excessive heat sources such as radiators and if racked with other power amplifiers there should be a free air flow to vent out the heat produced check with (dealer). The unit must only be connected to a power supply as shown on the rear of the unit with the IEC cable (or similar) provided with precaution taken to make sure that the grounding (earthing) or prolarisation is in place and not in defeat mode (ie. earth disconnected). The power cord must be situated or routed so as not to be walked upon or pinched or objects placed upon it with special attention to the area where the power cable enters the unit. the power cable should be disconnected during prolonged non usage. The user should not attempt to service the unit or do anything to the unit except those things described in this manual. For service and repair your dealer should be contacted. This unit complies with the relevant safety regulations.

POWER NOTICE FOR SAFETY

All british and european countries have a nominal 230v mains power supply which in practice is between 220V and 240V. In the USA the main power supply is nominally 115V and in Japan 100V. This unit is factory set to the correct voltage and this can be checked by looking at the label on the rear panel near the power cable. If the unit is to be used in a country other than that it was shipped to consult your dealer. The unit is suitable for use with mains frequencies of 50-60Hz. As there are no user serviceable components inside the amplifier, and high voltages are present, DO NOT remove the covers! Be sure to make all audio connections to the amplifier before connecting to the mains supply. Do not disconnect the amplifier from the grounded equipment with the mains connector still plugged into the mains supply. Important warning! This Unit MustBe Grounded, Do not Disconnect the Ground Connection! Any sound system should be connected to ground at one point only. If there is more than one Connection to earth, a GROUND LOOP can be formed, which allows mains hum to enter the circuitry, sometimes at a high level. If hum occurs in the system consult your dealer.

APPLICATION

The new Mp range of power amplifiers from Wharfedale is designed to give musicians, club owners and DJ's the performance, reliability and sound quality they require.

DESCRIPTION

The MP series consists of three models, the MP1200, MP1800, MP2800. These power amplifiers are designed for standard 19" (482mm) rack mounting. They have power supplies with substantial heavy high current transformers threrefore each model requires rear rack support to prevent stress on the front panel. These amplifiers are housed in steel casing suitable for racking in professional flight cases.

OPERATING

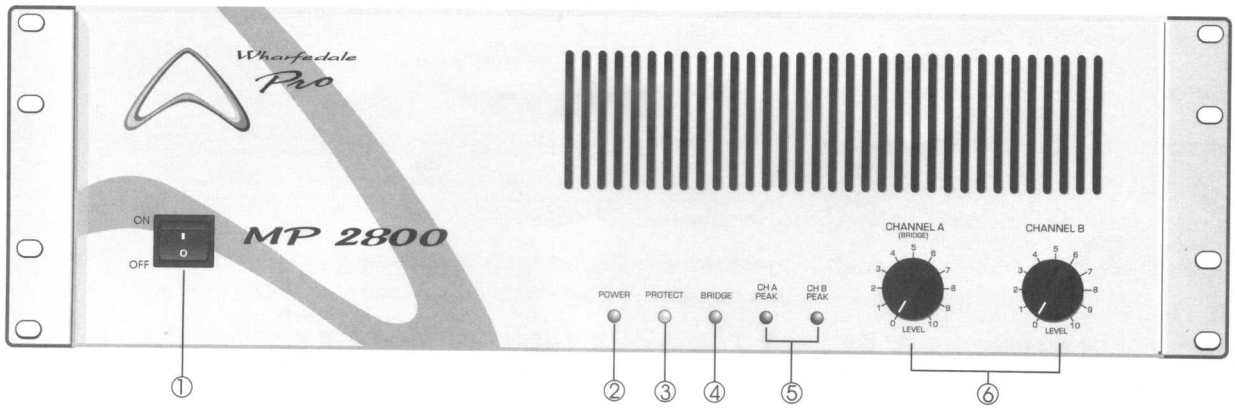
Before switching on the power amplifier ensure that ALL audio inputs are connected, ALL speaker cables are securely connected, ALL volume controls on the front panel are fully off and that the mains connections are safely and fully off and that the mains connections are safely and securely connected at the supply and amplifier unit.

CLASS 3 WIRING

Class 3 Wiring for TERMINALS with a measured open-circuit voltage exceeding 120 V r.m.s. but not exceeding 300 V r.m.s. when delivering NON-CLIPPED OUTPUT POWER.

FOR COMMERCIAL PURPOSE ONLY.

Front Panel



1. POWER SWITCH
The power switch is used to turn on and off the AC power.

2. POWER ON INDICATOR
The power indicator lights up when the amplifier is powered ON.

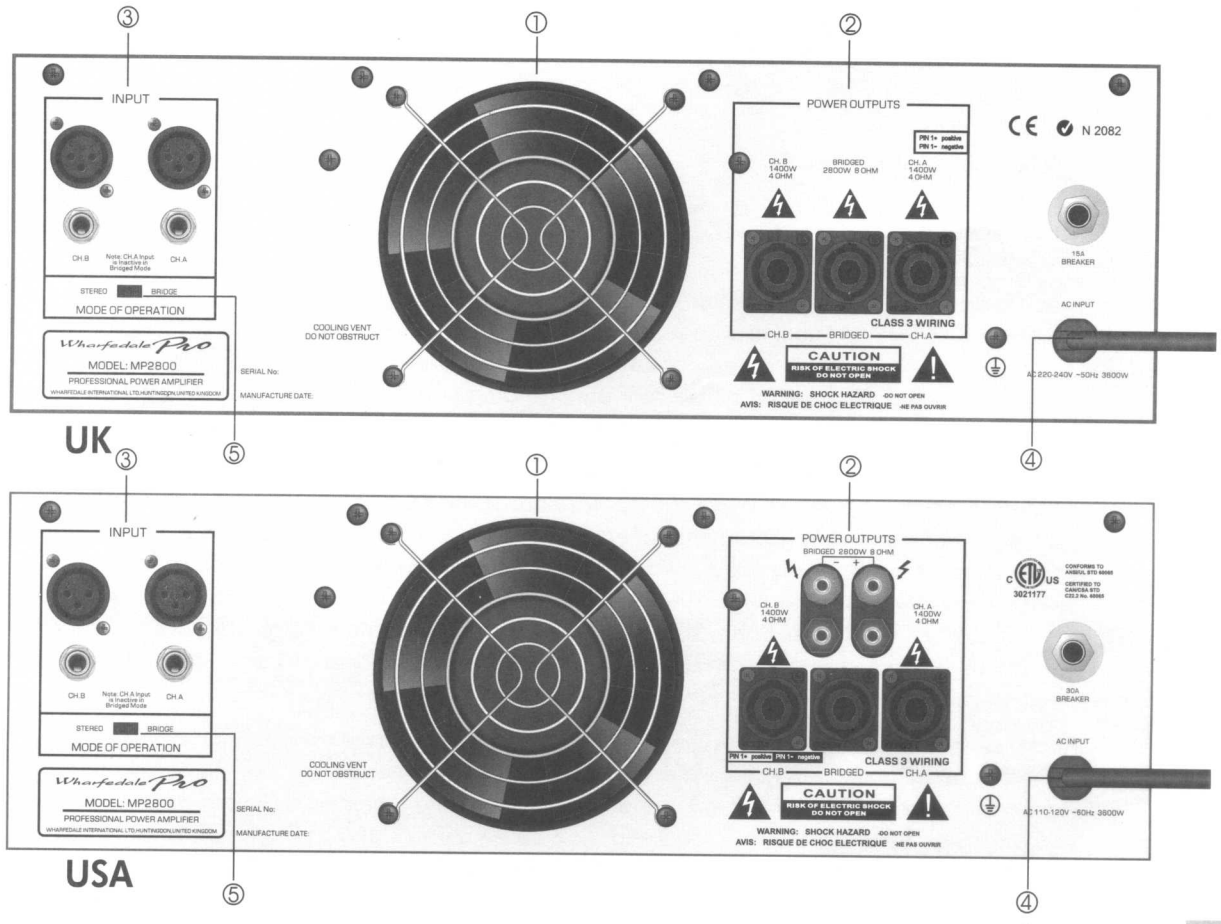
3. PROTECTION INDICATOR
The protection systems are activated when overheating occurs or a DC voltage Is present at the amplifier outputs.

4. BRIDGE ON INDICATOR
When the rear panel's STEREO/BRIDGE switch be placed in BRIDGE. Then the front panel's BRIDGE indicator will be bright.

5. PEAK INDICATORS
PEAK indicator on each channel illuminates when distortion reaches or exceeds approximately 1%.

6. INPUT ATTENUATORS
Separate level controls are provided for channel one and channel two input, clockwise rotation of the controls increase level.

Rear Panel



1. FANS

The fans should be kept free of all obstructions and be accessible to cool fresh air when possible. It is important that the fans be used in a dust free environment.

2.OUTPUTS

Loudspeaker outputs are on large diamete 30A binding posts or Speakon NL4 connectors. The binding posts may be used in 3 ways. In order of preference:

a)Use a quality 4mm Banana plug, colour coded, into the back of the binding posts.

b)Bare wire through the hole in the post, screwed down tight. This provides a very good electrical contact which is also very secure. Use the heaviest gauge speaker cable possible. A 4mm banana plug may be similarly clamped in this way.

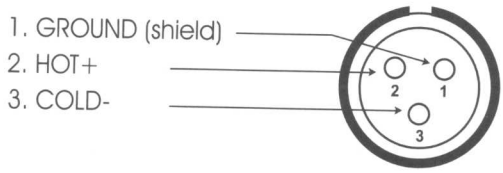
c)Bare wire may be wrapped around the post and the clamp screwed down. Be sure to wind the wire CLOCKWISE so that screwing down the clamp tightens the wrap. This gives a good electrical connection and is secure if done Properly.

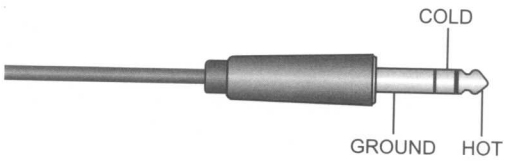
The SPEAKON sockets are wired: 1+ = positive, 1- = negative. **2+ and 2- are not used under normal operations.**

3.INPUTS

Each input channel is electronically balanced with one female XLR connector. in accordance with IEC and AES/ANSI standards the wiring mode is Pin 1 Ground, Pin 2 Hot and Pin 3 Cold. the 1/4" Jack socket is also wired in parallel with the XLR'S. the Tip is Hot, the ring is Cold and the sleeve is Ground.

Balanced Operation: Either transformer balanced or with active drive. connect the input between pins 2 and 3 with pin 2 positive. do not connect pin 1, attached the shield to connector case (classes ground). Do not connect the shield at this end to anything.





4. AC INLET

Plug this AC input cord into AC outlet.

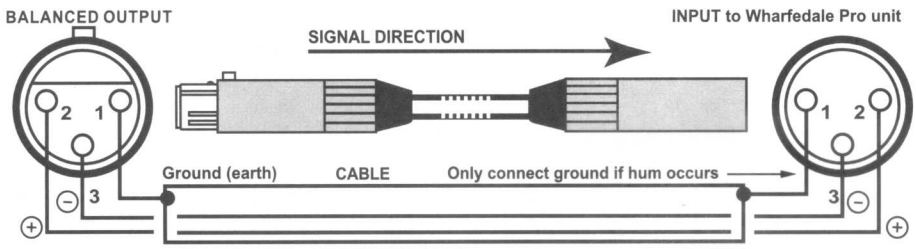
5. BRIDGED OUTPUT (MONO OPERATION)

To obtain a higher power output into a loudspeaker load the two stereo channels may be bridged to form one (Mono) channel. To do this connect the positive speaker wire to the RED post on channel-A, and the negative speaker wire to the RED post on channel-B. Alternatively the bridge Speakon can be used (the pin configuration is 1+ = positive, 1- = negative). When in this mode the BRIDGE switch on the rear panel should be set to BRIDGE and the signal input should be wired to channel A only.

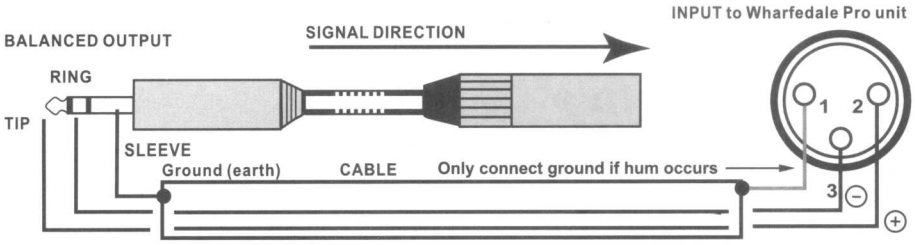
Many loudspeaker cabinest have more than one connector in order to connect extra cabinets to the same amplifier channel without the need for splitter cables. These connectors are wired in PARALLEL. Two 16ohm speakers wired in parallel equates to 8ohm (16/2=8). Three 16ohm speakers will give 5.3ohm(16/3=5.3). Two 8ohm speakers wired in SERIES will add up to 16ohm, three 8ohm speakers would be 24ohm and so on. To share power between two pairs or three pairs of similar speakers, they should be wired in SERIES/PARALLEL. Two 8ohm speakers for example are wired in series giving 16ohm impedance. Two further 8ohm speakers are wired in the same way, giving 16ohm. Each pair is then wired in paralled with the other to give a nominal 8ohm. The power available from any amplifier into an 8ohm load is shared equally amongst the four 8ohm speakers.

Bridging two channels of an amplifier combines the outputs to obtain twice the power. A 600+600 watt amplifier into 4ohm per channel will theoretically deliver 1200 watts into an 8ohm load. Four 8ohm 300-400 watt speakers wired in series/parallel as described above would be able to handle this output. 4ohm loudspeaker loads should only be used with care when in the bridged mode because the true load might be below 2ohms and at high output levels the amplifier's protection circuits could operate.

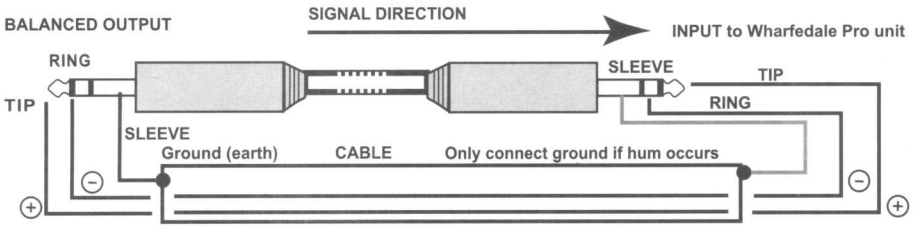
BALANCED INPUT WIRING TO WHARFEDALE PRO UNIT WITH XLR CONNECTORS



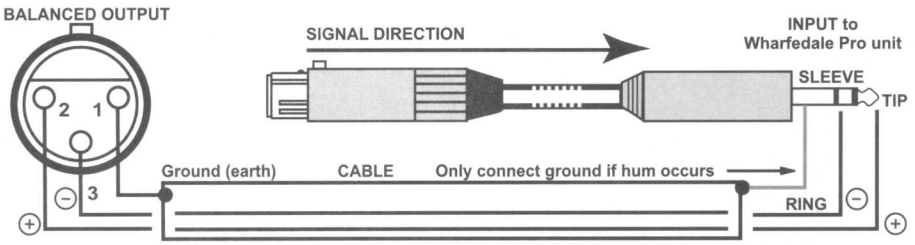
BALANCED INPUT WIRING TO WHARFEDALE PRO UNIT WITH 1/4" JACK to XLR CONNECTORS



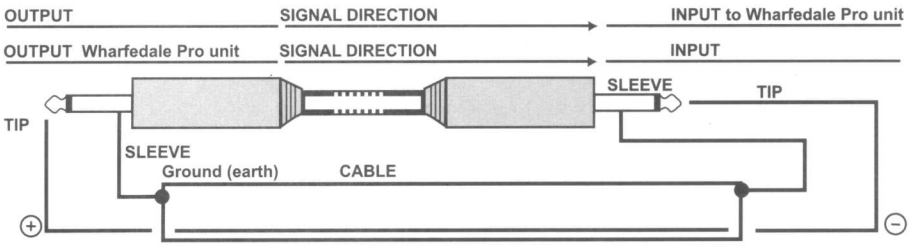
BALANCED INPUT WIRING TO WHARFEDALE PRO UNIT WITH STEREO 1/4" JACK to XLR CONNECTORS



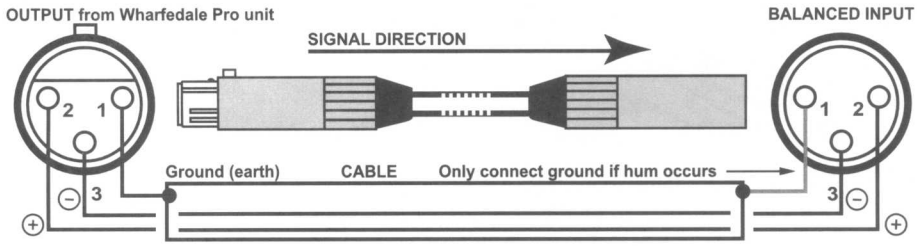
BALANCED INPUT WIRING TO WHARFEDALE PRO UNIT WITH XLR CONNECTORS to STEREO 1/4" JACK



UNBALANCED INPUT AND OUTPUT WIRING WITH MONO 1/4" JACK CONNECTIONS



BALANCED OUTPUT WIRING FROM WHARFEDALE PRO UNIT WITH XLR CONNECTORS TO BALANCED UNIT



A great deal of mistakes in sound installa-tions can be down to wrongly wired audio connections. It is important that the connec-tions are correct to suit your system.

Unbalanced system

An unbalanced audio system is typically a single conductor shielded with the centre conductor relaying the signal and the shield at ground.

Balanced system

Using a balanced audio system is where a two conductor shielded cable has each of the two centre conductors carrying the signal but of opposite phase. This gives each conductor an equal but inverted potential difference from that of the ground.

It is recommend that you use balanced audo connections if the unit before your amplifier has a balanced output. This will eliminate such as mains hum. For the best results xommon grounding should be avoided. This means not connecting the ground on both the amplifiers input and output connectors. Wharfedale pro advise that you connect the ground (shield) of the input connecting cable to the ground of the signal source while making sure the ground (shield) is not connected to the amplifier's input connector. The output cable connector from the amplifier if linking to another amplifier (daisy chained via parallel input sockets) should have the ground (shield) connected. The input connector ground (shield) to the following amplifier should not be connected. This is the process by which the ground (shield) is connected (tied) at the source unit but is not connect to the destination unit. If hum develops in some instances the ground (shield) can be connected on the input. Some manufacturers have units that recommend that the input connector ground (shield) is tied and the output disconnected. In this instance you may need to connect the input connector ground (shield) going to the input of the wharfedale pro unit. If an unbalanced system is used with XLR connections please connect pin 3 to pin 1 (ground) of the connector. This will mean that pin 2 transports the positive (+/hot) signal. If pin 3 to pin 1 are not connected this results in the negative (-/cold) input being 'open'. This will give an audible degradation of the signal to noise ratio. This would relate to both the input and output connectors and involve the cable ground (shield) connected at both.

Please note that some manufacturers run their units with pin 2 (-/cold) and pin 3 (+/hot). This should be looked out for and then the wiring could be modified with labelled cables so that connections of +/hot go to their corresponding +/hot etc. Some manufactures run their units with balanced inputs and unbalanced outputs, therefore care should be taken with the connections when inserted into the system.

Etensive Thermal Protection

All though the MP Series of amplifier feature powerful cooling fans it is possible that there will be an abnormally high temperature rise under some circumstances. When this happens special sensors will cause the amplifier to protect itself by first disconnecting the loudspeakers and then by shutting down the power supply until the temperature drops to a more normal temperature.Normal operation resumes automatically once the amplifier cools down.

Output Short Circuit

The output lines can be accidentally shorted together either by crossing the speaker wires or because of defective loudspeakers. If the short circuit remains in place then the thermal proteciton system will eventually operate to power down the complete amplifier.

Specifications

	MP 1200	MP 1800	MP 2800
RATED OUTPUT POWER:			
Stereo mode			
8Ω(1%THD)	260 W x 2	330 W x 2	800 W x 2
4Ω(1%THD)	400 W x 2	600 W x 2	1400 W x 2
2Ω(1%THD)	640 W x 2	900 W x 2	1500 W x 2
Bridged mono, mode			
8Ω(1%THD)	800 W	1200 W	2800 W
4Ω(1%THD)	1280 W	1800 W	3000 W
INPUT SENSITIVITY & IMPEDANCE:			
@ rated output power,4 ohms	0.775 V	0.775 V	0.775 V
Unbalanced, 1/4 hone jack	10Kohms	10Kohms	10Kohms
Balanced , XLR	20Kohms	20Kohms	20Kohms
VOLTAGE GAIN:	35dB	36dB	38dB
SLEW RATE: 8Ω full swing	> 30V/ μs	> 30V/ μs	> 40V/ μs
CHANNEL SEPARATION:	76dB	76dB	78dB
SIGNAL TO NOISE(20Hz-20kHz)	⩾100dB	⩾100dB	⩾100dB
DISTORTION: (SMPTE-IM)	less then 0.05%	less then 0.05%	less then 0.05%
FREQUENCY RESPONSE:	20Hz-20kHz	20Hz-20kHz	20Hz-20kHz
DAMPING FACTOR: (8 ohms, 1 kHz)	Greater then 300	Greater then 300	Greater then 400
TOPOLOGY:	Class AB	Class AB	Class H
CONNECTORS:			
Input	XLR and 1/4" TRS	XLR and 1/4" TRS	XLR and 1/4" TRS
Output	Posts & Speakon or Speakon	Posts & Speakon or Speakon	Posts & Speakon or Speakon
CONTROLS:			
Front	AC switch, CH.1 and CH.2 gain knobs	AC switch, CH.1 and CH.2 gain knobs	AC switch, CH.1 and CH.2 gain knobs
Real	Stereo/Bridge mode switch	Stereo/Bridge mode switch	Stereo/Bridge mode switch
INDICATORS:	Power switch on/off mute, Short circuit, Open circuit, Thermal	Power switch on/off mute, Short circuit, Open circuit, Thermal	Power switch on/off mute, Short circuit, Open circuit Thermal
COOLING:	Continuously vasriable-speed fan	Continuously vasriable-speed fan	Continuously vasriable-speed fan
WEIGHT:			
Gross Weight	23Kg	25Kg	29.5Kg
Net Weight	21.5Kg	23.5Kg	28Kg
DIMENSION: (HxWxD)	133 x 483 x 355(mm)	133 x 483 x 355(mm)	133 x 483 x 355(mm)

Specifications and design subject to shange without notice for improvements.

Wharfedale ***website***:www.wharfedalepro.com

Wharfedale Pro

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